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A GENETIC STUDY OF MAKE-BELIEVE

THE advantage of our subject lies in the fact that the phenomena of make-believe are very abundant and right at hand. The familiarity of it is, however, likely to prove a disadvantage in that the most common and ubiquitous facts of the world have been treated for so long a time in habitual ways that it is extremely difficult to approach them from a fresh point of view. A citation of some instances of make-believe, showing different aspects of the subject, may serve as the proper mode of introducing the subject.

A number of boys were observed coasting upon a long hillside. Several reached the top together and stood for a moment to catch their breath. Suddenly one shouted aloud, "I'll be the hearse," and dashed down the hill. Another said, "I'll be the pall-bearers," and then dashed after the first. A third roared louder still, "I'll be the mourners," and too went down the hill. All the others followed in line, each assuming some part in the funeral procession. A certain boy who was assigned the task of pulling the milkweeds from the oats incited and sustained himself in the work by playing that the weeds were so many Indians on the warpath. The New England farmer who wanted his boys to gather the rocks from a certain field and throw them in a near-by ditch was unable to keep them at work until he invented the illusion that the rocks were water, there was a house on fire in the ditch, and the rocks must be thrown onto it to put out the fire. The report reads that not only was the field cleared, but the boys asked for other fields to operate in. The children who had littered the sitting-room floor with wood and paper were induced to clean up the muss they had made by make-believing that each stick and piece of paper was a dead Spanish soldier that must be carried to the cemetery for burial. The woodbox served as burying-ground. The common element to be found in each of these four incidents seems to be the thinking of things to be something else than they are or have been thought. This phenomenon shows several different aspects, as may be seen from the following examples: The boy at table pats his mashed potato into the form of a pie, cuts it into pieces and eats it under the illusion that it is pie. His glass of

water is poured out into a saucer and drunk as "hot tea." He is induced to drink his cup of milk by the suggestion that it is "beer." Again, his potatoes are covered with gravy and pricked full of holes on top with his fork to make them look pretty. "They taste better then." Potatoes are roasted in ashes and dirt and eaten with avidity, when the boys get to be "Revolutionary soldiers." "Robbers and highwaymen must often subsist upon poor and meager fare, and they have been known to eat roasted corn that was burned to a crisp." In these the poorer food is thought to be the better and so eaten as the better is eaten. We scarcely need to go back to pre-Socratic times to see how the worse is made to appear the better reason.

A third aspect may be seen in the following incidents: Several children were playing that a given space between two boxes was the ocean, and commerce was represented by passing articles back and forth from one box to the other. Inadvertently one child stepped off his box and was remonstrated with for being in the ocean. He immediately suggested that they play he had on rubber boots. Several others were playing house, when a lady came along and stood to watch them. Several children protested, saying they would not play if she stayed. One suggested that they play she was a visitor, and then the play was resumed with greater vigor. The boy who had asked for bread and butter with jelly was disposed to refuse bread and butter alone. It occurred to him to play that the butter was "white jelly." When a boy's requests are refused, he immediately grants them in his own fancy. When he expresses a desire for something and it is not forthcoming, it appears right then and there in his mind that he did not want it. When he is coerced into doing what he had refused to do, he makes-believe that this is what he was just about to do. Truly the child fortunate in the power to make-believe may live in Elysian fields. He carries with him all the while a magic wand or an Aladdin's lamp which makes the supply equal to his wants and leaves no unsatisfied desire to mar the perfection of his happiness. Difficulties melt away in his fancy and hindrances are transformed into helps. Something is thought to be nothing and nothing may become something.

Rude toys and primitive tools have been remarked to have a deeper fascination for children than the creations of the toyman's shop. For downright good times and rollicking fun the old rag doll and the china doll are more than speaking distance ahead of the other. The facts are that the rag doll is so much more tractable and docile than the Parisian creation. It can be dressed or left undressed. It will sit up or lie down or do anything else that may be required of it. The broomstick is really a better horse than the

boughten rocking-horse. It is so much more manageable. The boy can think so many more things about it, and each one of his thoughts will come true. For the same reason corn-cobs, sand, dirt, leaves, and blocks of wood are his richest treasures. They yield so readily to the magic of his hand; they offer no resistance to anything he may attempt. He can think a cob a fence rail, a bridge timber, a building block, a railroad tie, etc., and it works well. The fascination for clipping papers with scissors, for pounding tacks and nails, for whittling and cutting with a jack-knife, and for digging in the sandy beaches is found in the fact that in each he can think and act out—and act and learn to think—the greatest possible variety of thoughts. Make-believe here appears as the power to think a given thing a variety of different things. The objects that are best suited for play are such plastic things as sand, paper, and blocks of wood. This power of varied thought suggests itself as the crucial moment in the make-believe process. Varied thinking leads to varied acting. In the following incidents it will be seen how strong is the tendency to varied acting and how entrancing is a series of varied movements and changing sensory stimuli: Boys going along the street twist and turn their feet first in and then out, then to one side and then to the other. They walk stiff-legged, on the heel, and then on the toe of the foot. They limp with one foot and then with the other. They punch their eyes to watch the kaleidoscopic changes of color in the field of vision. They punch their fingers into their ears to break up the sounds from their surroundings into varied characters. In repeating the formal expressions from their books, they must introduce some variations; such as, J. H. Dunn becomes J. H. Dunn-to-a-crisp, Bosworth is Bos-worth-a-cent, and Charles Bond is Charles United States Bond. Grimacing and making faces before a mirror are other cases in point. It may be suggested right here that these varied movements are the results or only other aspects of the variability of morphological forms. It would seem that variation in form, variety of movement, and varied thought are essentially one and the same thing. They express the same fundamental law of organic beings.

The climax of make-believe is reached in playing with imaginary companious and in the transformations which the idea of self may pass through. Several cases of imaginary companions have got into literature. One case of an imaginary companion lasting for the better part of childhood has been reported to me, and several cases lasting for months are found in the collection to which I have access. In these a child talks and acts as if another child were present most of the time. Provision is made for this companion at the table and conversations are carried on during playtime. A good deal of men-

tal pain is felt when the companion is not treated seriously or when the provisions for the companion's welfare are not allowed. Playing with the idea of self is closely correlated with this. A child assumes the character of another person and insists upon being recognized in the assumed character. Sometimes it is a dog or other animal. The child finds himself in the presence of this thought of himself, and he begins to think various things or to think himself in various selves. He is now a horse, now a street-car, now a bear, and now locomotive. The personality of the child is thought now in one form and now in another. Here, again, is the same phenomenon of varied thinking which has been spoken of before.

Closely associated with make-believe, and of essentially the same character, is the playing by rule or living up to rules in boys' games. This suggests a stage in social as well as individual development. Many of their games present situations in which a player is tested as to his ability to live up to a rule. A walk about the city the day after Thanksgiving, when an exciting game had been played upon the university campus, revealed a number of groups of boys playing football. In the first four colored boys participated. One placed the ball, another stood at some distance to receive the kick-off, a third kicked, and the fourth acted as referee. The ball was kicked, and immediately the referee declared a penalty, and, taking the ball, he stepped off with some majesty five or ten steps and replaced the ball for another kick-off. In another place a larger number were playing. The ball was passed to a player, who ran with it. The other players took turns at "tackling" the runner. The point of the game was to make a dramatic attempt at tackling, and the runner understood well that it was his part to act so that the tackle should be as spectacularly effective as possible. In still another game the player running with the ball was expected to be tackled, but he played his part by falling in a truly histrionic manner. The point seemed to be all along to carry out in action some thought process which had been aroused by these words. The make-believe appears in the fact that the play is not to be taken seriously, while the adherence to the rule was the crucial point.

The characteristics of make-believe thus revealed seem to be a disposition upon the part of children to think things otherwise than they have been thought before, a tendency to varied thought, and the working out in action processes of thought that have been suggested by actions and words. It will not be difficult to see that these are the characteristics of mind as they reveal themselves in every-day action and thought and signalize themselves in all those moments when requirement is made for invention or originality. Such situations are met by the capacity to think them in some other form than

they have been thought before. Objects become whatever they are conceived to be and, as Professor James suggests, they are nothing else than that. Make-believe is this "mode of conceiving" as it begins to manifest itself in the developing child. Now to think a given object as something else than it has been thought is a suggestion that it may be thought in turn varied things—varied thoughts can be thought about it. The tendency, then, to varied thinking is only an extension of the former process. Thoughts are primarily drawn from actions, and they in turn lead to a realization of themselves in action. The circumstances under which a train of varied thoughts will arise is some novel situation. New objects set up random movements and a fumbling groping which cease with the discovery of some action that will put an end to the impulse to action. The point has often been made that fumbling and movements repeated with variation are the antecedent conditions of all learning. The hurrying and scurrying of a bug which has suddenly been dislodged from his hiding-place ends when he finds a new hiding-place. The playing child finds no further fun in a play when he has learned just how to carry out the rules under which it is to be played. When he has thought every thought about an object that will work well, he turns to something else. Interest is simply a function of thinking varied thoughts.

Make-believe is essentially the method of trial and error as it appears in the realm of ideas. The processes that give us ideas are subject to the law of variation just as instinct activities and morphological forms are. In the presence of new things and such as have no character—plastic materials—this tendency leading to varied thought arises. Known things invite fixed and stereotyped reactions; unknown things—and plastic materials—incite random fumbling and varied thoughts. In the presence of new things, if the individual thinks at all, he thinks thoughts that vary and diverge. Some one of these thoughts or acts may satisfy the impulse. If it be a thought, it will satisfy by leading to an act. The thing and the act which greets it thereby form a functional unit, the thing becoming known through the act—getting meaning—and the act becoming fixed in relation to the thing. This functional unit between an object and an act is an idea. Whenever the object is re-presented, it arouses this idea process which implies the reinstatement of the act that has satisfied the condition presented by the object. The incentive to thinking varied thoughts is an emotional interest. Whenever a train of varied thoughts arise, there is the condition of an emotional interest. The varied thinking is not something else than the emotion; it is rather the emotion itself. The general emotion here is one of curiosity. It is awakened by new things, new

aspects of old things, and plastic materials. Emotional reaction has the character of a random response. During emotion one is subject to the repeated presence of ideas. Emotion thus becomes the atmosphere in which we learn. Make-believe represents this process of learning in the developing mind of the child before the child mind has taken on to any considerable extent the stereotyped character and the definitely recognized emotional reactions which we know as belonging to the adult mind.

The difference between childish make-believe and adult varied thinking lies in the fact that the child thinks in the presence of any object all his various thoughts, and so the associations thus offered bear bizarre appearances and are spoken of as fantastic. The adult thinks his new object first in some class, and then he thinks all his various thoughts of this class until he finds a satisfactory thought. The object drops successively into one class and then into another which is ever subordinate to the one previous. It gets first one meaning and then another; it gets first general or "genus" meaning, and then "species" meaning, and, finally, "variety" meaning.

Upon its evolutionary side make-believe represents the transition in the child life from instinct modes of conduct to ideationally controlled acts. For the child the world of things must be translated into a world of ideas. A satisfactory treatment of the problems of mental evolution must furnish an explanation of how ideas come to substitute themselves for external stimuli. The new-born child can not act otherwise than upon an immediately present stimulus. The source of movement is for him found in the external world. Before adult life is reached the cause of action must be transferred from the external to the internal world—conduct must be put under the control of ideas. Through make-believe the real world of objects transmutes itself into a world of represented objects within which, on the whole, ideas become the cause of actions. In the higher modes of response it is the conceived factor in external situations, and not the particular object, that is the exciting cause of activity. When an object is presented, it is conceived in some manner and acted upon for what it is thought to be. When the action works well, the object becomes just that—it is classified.

Chronologically spontaneous and random activities and imitation have preceded make-believe in their appearance. These are the processes that discover to the child most of his fundamental ideas. By random fumbling and imitation the child gets idea processes started, but until these idea processes can free themselves from the reflex acts through which they have arisen the child is almost as much a slave of his external environment as the instinct-controlled ant—he must wait until the objective situation is presented to get

his idea. The idea processes begin to recur without the external excitation, but they must be tried on to discover whether in arousing activities they work true. In this manner they come to get complete independence of the situations under which they have first arisen. Make-believe is simply trying on ideas to see whether they work true.

Make-believe is not confined entirely to childhood; it survives and persists, somewhat modified, it is true, throughout the whole of life and forms one of the most powerful of social instruments. The things that we can not get are "sour grapes," the riches of this world in which we share not are not worth having, the world itself to the penitent sinner is cast aside as mean and sordid in view of the glories of eternal life upon which he has now set his gaze, the cautious mother in denying the request of her child tells him that the object of his desire is old and big, etc. Remarks made in fun, lies told for a joke, mean things done as tricks, April fool pranks, etc., are not reprehensible. An apology seems to have the power to right a wrong. Violations of constitutional and statutory provisions are treated as new "interpretations." All these are only further instances of the power to think things something else than they have been thought before. A long list of pure illusions under which society has been living all the while might be cited. The sociological writers have by no means overlooked this fact, but they have not seen as clearly the principle that underlies the phenomenon. Tact, diplomacy, finesse, euphemisms, and the arts of dissembling depend for their power upon the ability to think something else while a given fact is before the thinker. Generally speaking, the worse becomes the better cause. Philosophy and Christian Science are one in the fact that both take the attitude that the realities of common sense are often quite unreal, and at times the unrealities of daily life are allowed to have the only reality there is. The first finds the ideal real and the latter rings the changes upon the unreality of pain. In the higher modes of thinking the present manner of conceiving the object or situation bears an analogy to the manner in which it was conceived before. In this respect it differs strikingly from the process of make-believe in children. Still when stone coal was first conceived as fuel, the analogy was not so apparent.

From the standpoint of the creative worker art relies upon the power to think plastic materials, marble, paint, and charcoal, in various ways. In the onlooker a work of art leads to trains of varied thought. The same is true of a work in literature or of a musical composition. To say that a given creation is suggestive means that it will excite a sequence of thoughts with variation. In criticism and interpretation an attempt is made to show that the various streams of thought aroused by the production lead in de-

structive criticism to states of mind of conflicting feeling tones, and in favorable criticism to states with the same feeling tone. Judicial decision attempts to show that a given statute is in or out of harmony with a fixed feeling tone of the people that has found expression in a constitutional provision or in a common law principle.

In invention and discovery this power to think varied thoughts reaches its highest and richest development. The condition under which most inventions are made is a felt want. There must be a state of unrest and excitement. The want prompts various thoughts, each one of which is tried on to discover whether it will work well. To work well is to satisfy the want. Our whole country is at present agitated by the financial situation. The demand is for currency. One person has thought of certificates of indebtedness, another of bond issues, another of asset currency, another of guaranty fund for deposits, another of cashiers' checks, etc. Each one of these thoughts may be tried on to find out how it will work in practise. In the case of some of them a forecast may be made of its mode of operation. That, however, is only another way of trying it on. A city is seeking for pavement to be used upon its streets. There begins this process of varied thinking. In both of these cases many persons are doing the thinking and the variety comes through the fact that different persons think different thoughts. In the case of the scientific man doing inventing, one individual is thinking a succession of thoughts with variations. When a thought has arisen which, when carried into action, satisfies the want that has unsettled the thinker, the process comes to an end.

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JULES DE GAULTIER'S THEORY OF THE SCIENTIFIC PRINCIPLES OF ETHICS

THERE are waves of interest in the different fields of philosophical researches as there are in other domains. Just now, owing undoubtedly to the pressure of social problems, there are indications that we might witness a revival of ethics. Pragmatism, as a matter of fact, is nothing but a strong affirmation of the rights of ethics; the unceasing discussions of the Dürkheim and Levy-Bruhl theories of the *science des mœurs* in France, Fouillée's recently published "La morale des idées-forces," are only manifestations of similar tendencies. Ribot, the director of the *Revue philosophique*, was telling not long ago that he had received last fall—and had been obliged to refuse most of them—articles on ethics at the rate of about five a week.

Among the interesting suggestions made of late in the field of ethics, one attracted our attention, and we should like to explain it in a few words.

It was proposed by Jules de Gaultier, who, although rather a new-comer in philosophy, has already written several books, among which we mention: "Le bovarysme" (essai sur le pouvoir d'imagination), "La fiction universelle" (deuxième essai sur le pouvoir d'imaginer), and "La raison et l'idéalisme," all three published by the Société du Mercure de France. Of his articles the more important are: "Une signification nouvelle de l'idée d'evolution" (*Mercure de France,* June 15, 1905), "La dépendance de la morale et l'indépendance des mœurs" (*Revue philosophique,* October, 1907), and he has himself summarized his main theory in a recent article, of November, 1907, in the *Mercure de France,* under the title "La vertu de l'illogique," from which we will specially quote.[1]

Personally it is our conviction that Gaultier would have won more recognition if, instead of writing so much, he had concentrated his thought within the space of one concise and vigorous book. Still, as it is, his speculations deserve attention.

All systems of ethics, thinks Gaultier, aim at bringing about universal harmony between man and his social and natural surroundings. But suppose for one moment that this aim had been attained, what would be the use of life? "Universal adaptation is a euphemism meaning non-being (*le non-être*)"; life would be brought to a standstill; the aim of life being suppressed, life would be death. In other words, morality would have realized the undesirable.

Gaultier claims, therefore, the desirability of the *illogique* (the term does not seem to us to be particularly well chosen) as alone giving to life its *raison d'être.*

Now, if man does always endeavor to bring about universal harmony or adaptation—which means death—nature proves, as it would seem, more conscious of our needs, inasmuch as it takes good care, in creating constantly new obstacles for us, that our faculties of adaptation shall always be needed. The changes in the material conditions of life, changes due to cosmic causes, give a chance to man to show that he can conquer difficulties; they form the end of his activity, of life.

Gaultier supports his theories by scientific facts; especially he illustrates from one of the most suggestive books published recently in France, namely, Quinton's "L'eau de mer, milieu organique" (Masson, 1904). In studying the diverse manifestations of life in the sea, Quinton endeavored not only to show facts of transformism

[1] The two articles in the *Revue philosophique* for March and April, 1908, "Indépendance de la morale," were printed after this article had been written.

and evolution, but to explain at the same time, as one might say, the teleological aspects of those changes; and the teleological aspects Gaultier calls ethical aspects:[2]

"The purpose of life is life, life which critical circumstances, effects of a formidable fatality, threaten to destroy every moment, and which can be kept up only by modifying and perfecting, at the cost of a continuous effort, the system of defense that is opposed to the increasing hostility of the milieu (*l'hostilité croissante du milieu*)" (p. 39).

Gaultier gives two examples of this *hostilité croissante des milieux* which stimulates action (natural or rational) and, in a way, creates life.

"In order to render things simpler, we will consider this hostility of nature only from the one aspect of the cooling of the earth. The first way of reacting is merely physiological: with the most evolved species, particularly with birds, the living cell, according to the theory, has formed for itself an organism in the interior of which and by means of which it has increased its caloric power to such a degree that it compensates the cooling off that has come about since the time when life first appeared on the surface of the globe; in such a fashion that, in this external milieu which had become hostile, it has created for itself a milieu of its own (*un milieu clos immédiat*) similar to that which made it come to life and where now the conditions most favorable for prosperity exist. To this tactic corresponds another: it manifests itself by the improvement of the cerebral organs, which have attained in man their highest point of development, with intelligence considered as a means of adapting an instrument to an end. Man, who can not raise his normal temperature higher than about 37½ degrees, stands in a marked inferiority as compared with birds, which raise theirs as high as 40 or 44 degrees. But he makes up by his power (namely, his industry and his intellectual ability) to modify the external milieu itself. Owing to this intellectual intervention, he knows how to benefit the biological entity whose cause he defends, the elements of the external milieu, and even the hostile forces of the cosmos; he invents fire, clothing, houses, and so forth" (pp. 43–44).

This Gaultier theory is made all the more interesting if we compare it with some of the data furnished in Varigny's fascinating book "La nature et la vie" (Paris, Colin, 1906). We beg leave

[2] It is a question whether Gaultier does not take the terms in too broad and vague a sense; whether he is not betraying Quinton's thought. Surely his terminology is not very precise: *logical, ethical, scientific* seem to be used pretty much as synonymous; this makes things easy, indeed, and simple; perhaps sometimes too easy and too simple. But this means not to be a critical study.

to translate one or two passages. "If carbonic acid, which represents 3 or 4 parts out of 10,000 of air, should happen one day to diminish by only half of this small proportion, the average temperature would fall 4 or 5 degrees, which would mean in many regions the return of glaciers. . . . Thanks to very accurate calculations, geologists have shown that, in case of a lowering of temperature of 7 degrees, the mountains of the Vosges would be covered with glaciers (Le Blanc), and that, in case of a lowering of temperature of only 4 degrees, the glaciers of Mont-Blanc would come down and cover permanently the plains of Geneva (Ch. Martins). Thus a relatively small lowering of temperature would suffice to cause the whole of France and the remainder of Europe to be covered with ice, and the heat from the sun would not be strong enough to melt the snow accumulated during the winter. In other words, this relatively small lowering of the average temperature of the temperate region would bring about very promptly an offensive return of the glacial period. . . ." Now, "it is possible that variations in the amount of carbonic acid in the atmosphere have taken place. In fact, such variations must have taken place. It is certain, for instance, that after the coal periods (*périodes houillères*), when so much carbonic acid was absorbed for thousands of centuries, in the form of coal, such a diminution of the carbonic acid in the air must have taken place. . . ." "One might say that the amount now on hand is certainly sufficient, since, as a matter of fact, life does not diminish, and neither does the gas. This is true; but our observations are so recent! The proportion of carbonic acid in the air may not have changed in the one hundred years that we have watched it; but what are one hundred years? On the other hand, it is manifest that the proportion of carbonic acid must have been larger in the past. It is certain that every day a considerable amount of this gas is absorbed: owing to the disaggregation of rocks a great many carbonates are formed which are lost for vegetation" (pp. 120–125).

All this reminds us, of course, of Russell Wallace's famous essays on "The Action of Natural Selection on Man." But we must not forget that Russell Wallace wrote with a view to separate sharply between human activity and merely instinctive animal and natural activity, while Gaultier claims, on the contrary, that although man is possessed with another instrument (the mind), the end of human activity is essentially the same as the end of animal unconscious activity from the philosophical standpoint; the latter is just as "moral" as the first. Quinton's researches explain the teleological reasons of life all over the globe; they show, first, why life assumes such and such forms under different circumstances in the lowest

beings (because they endeavor to conquer a hostile milieu); and then, at the same time, they reveal to us the meaning of morality in human life (which is not an adaptation *once for all* to surroundings, physical and social,[3] but a conquest of constantly newly arising difficulties). "Thus, in revealing to us the reason of the evolution of organisms, Mr. Quinton has restored to the idea of evolution its sober and precise meaning. . . . In showing us that evolution has an immediate *raison d'être,* in disclosing its end, which is to allow the cell to struggle successfully among circumstances of an ever-increasing hostility, he offers us a conception of life which allows us to share those efforts for life, and to assign to our own human activity a definite task and an objective value. . . . This gives to ethics an aim which, for the first time [?] is not imaginary; and this allows us to classify the moral phenomenon (*le fait moral*) among the objects that are within reach of science" (pp. 40–41).

The idea of opposition and hostility fostering life, of course, can not be said either to be new altogether. Gaultier himself mentions Hegel as a predecessor, and more recently Tarde and Paulhan; and he claims for himself the honor of having developed it more fully in a system which he calls (from Flaubert's famous novel) *le bovarysme.*

As for us, the theory reminds us even more of Schopenhauer and Hartmann than, for example, of Hegel. Is this organic effort to conquer difficulties of life, suggested by Quinton and Gaultier, very different from the "will to be" or from the "unconscious" which inspire in us the desire to live? Gaultier only stands more on the psychological and human ground when he explains his system. While Schopenhauer and Hartmann consider simply the will to live an inexplicable metaphysical principle, Gaultier *explains* it for us as an action that, in its manifestations at least, can be understood; he says not only that organisms want to live, but he accounts, intellectually, why it is so; he says also, in regard to man, that man does not want simply to live, but that his *desire to live,* means, when analyzed, *desire to conquer.*

This would account, perhaps, for the fact that, while Schopenhauer and Hartmann considered life as an evil in itself, Gaultier does not betray any such attitude. Indeed, there is an interesting *rapprochement* that can be made between Gaultier's theory and that

[3] We remark that Gaultier does not take up the real moral question in humanity in this article; he speaks only of our struggle against material difficulties, but not of the struggle resulting from social intercourse, from relations of man to man or to society; but, of course, the theory can be extended easily, namely, so that the always more complex organization of social life constantly brings about more difficult problems of adaptation in society. We are kept busy in overcoming them.

of Christian Providence: namely, that of nature taking care that life be made a test of man's energy and abilities, of his moral value, and thus of nature working, if not for man's happiness, perhaps, at least, for moral perfection.

On the other hand, the theory as explained by Gaultier is not entirely rounded up—if we may so speak. It will be remembered that he opposes his conception of life, his morality, to that of the systems of ethics which hold that perfect harmony is the end of human efforts. But one does not see how, in accepting the theory here described, the *morality* of the fight is higher than the morality of the perfect harmony scorned by our author. Either he must complete his own theory by admitting a God who compels us to conquer and work and suffer—thus completing his edifice by a metaphysical theory; or he must prove that in this conquering and working and suffering there is some other reason which, to us, makes life worth living. In the first case we come back to the old morality of religious authority. In the second case we face this new alternative: (*a*) If, as a conscious being, I consider the fighting as undesirable, and life as a suffering, there is no reason (God being withdrawn) why I should not kill myself—thus, like Schopenhauer and Hartmann, recommend the bringing about of the end of the human race. (*b*) If I do not choose to give up my life, it must be shown that in this work, suffering, etc., there is enjoyment. In other words: Gaultier says that the aim of life would be done away with if universal harmony is brought about; but then he ignores altogether the new problem that stands before us, if we accept his views, namely: Is there any ultimate *raison d'être* to this life which means failure and labor and suffering? Is it worth while that I should continue the fight? If so, *Why?* Or is the labor, failure, and suffering desirable for me personally? If so, *How?*

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DISCUSSION

THE PRAGMATIC NOTION OF ὕλη

IN Vol. V., No. 4, of this JOURNAL, Mr. A. R. Gifford makes some interesting remarks on the pragmatic notion of ὕλη. As his contentions are aimed, if they work, to commit pragmatists to their pet *bête noire*, the absolute, it may be not uninteresting to discover how far they succeed.

I take Mr. Gifford's important propositions to be as follows:

I. "The concept ὕλη when applied as a limitative concept apparently leads out into an infinite regress, for at whatever level

pause be made, the pure ὕλη is still to seek. An ever-receding hypothetical basis of determinate experience, which always remains *beyond* experience, can not be harmonized with the proposition 'reality is experience'" (p. 102). "Indeed, an indeterminate but determinable ὕλη is obviously a contradiction in terms" (p. 103).

II. "The concept ὕλη seems capable of intelligible use in one sense only, viz., that any specific determinate item of experience is potentially another item which is yet unrealized. That it may become such other item is conditioned upon its possession of certain definite characteristics. No indeterminate item could *be* at all, and so *a fortiori* could not become the basis of experience" (pp. 103, 104).

III. "In spite of pragmatic contentions to the contrary, we must, therefore, not merely acknowledge a *system* of things constituted by the inner and essential relations of the particular items of experience . . . so long as we assent that reality is experience, for just so long must we further assent that no aspect of experience—actual or possible—contains or reveals a bare ὕλη, a sheer potentiality. For within experience form and content imply one another. To admit this is to admit that in some sort the matter of experience has a psychical basis. There can be no non-psychical ὕλη" (p. 104).

I shall consider these contentions in turn:

I

The issue raised is really the issue between monism and pluralism. Mr. Gifford seems to assume (1) that the infinite regress is objectionable, and (2) that the phrase "reality is experience" is interpreted by the pragmatist in the same way as by Mr. Gifford. The second of these assumptions is *a priori* false, since Mr. Gifford appears to be a non-pragmatist, but, one would gather, one of the thirteen varieties of absolutist or monist. Pragmatists, on the other hand, are avowed pluralists. It would seem, therefore, that for Mr. Gifford the proposition "reality is experience" is a mere tautology; that its two terms exhaust each other, that nothing *new* is learned by means of their juxtaposition. If that is so, if Mr. Gifford agrees with Bradley that predication is either tautology or contradiction, Mr. Gifford assumes too much in assuming the pragmatist also agrees with Bradley. For the pragmatist and pluralist predication has meaning! "Reality is experience" is a synthetic proposition by means of which some new knowledge is gained of reality. If the proposition works it means that experience is *true of* reality. It does not mean that experience is identical with reality, any more than "the apple is red" means that apple and red are identical. The intent is that experience stands in a definite relation to reality; a relation that the pragmatist denotes by the word "works." So

again, when Professor James writes that some relations "are fixed and essential because they are grounded on the inner nature of their terms," it is to be remembered that Professor James writes as *pluralist.* To interpret *grounded* as meaning *constituted by* is to beg the question, which Mr. Gifford both explicitly and implicitly does. Professor James, as pluralist, can not be interpreted as Mr. Gifford interprets him; he must be held to mean merely, that given two terms, say, *red* and *green,* there is a relation between them, say, *difference,* which invariably works as a predicate of either with regard to the other. Difference, for the pluralist, is an entity, immediately given in experience. It can be thought of intelligently, quite without terms, by any one except such whose philosophy is based on denying this. Why it "implies that mathematics and logic are not through and through pragmatic," or where pragmatism denies them "an objective . . . aspect," is very difficult to see. Mr. Gifford insinuates the word "absolute" as an attribute also of mathematics and of logic. What he means by "absolute" is not at all clear. If he means totally irrelevant to any human purpose, he is obviously mistaken; if he means "independent" of human usage, I do not understand how he can talk about absolute matters at all. To be "through and through pragmatic" is to be thoroughly satisfactory instruments for the purposes of life. There is, perhaps, nothing that has been so "through and through pragmatic" as logic and mathematics. That is why they have survived Hegelism and its absolute, in which *yes* and *no* were the same thing. It is a mere *non sequitur* to argue that the acknowledgment of fact, and eternal relations, constrains the further admission that the so-called "that" aspect of cognition is vastly more than a bare "that." This can follow only on the doctrine that relations are *constituted by* their terms, are immanent in them and unknowable without them. It *can not* follow on the pragmatic account of relations.

Nor, in that account, can it be argued that the infinite regress involved in the attempt to get at ὕλη is objectionable. For all that the infinite regress proves is that what is not ὕλη is numerically different from what is. ὕλη may be inferred just as other minds are inferred. The same infinite regress is involved. One would gather from Mr. Gifford's objection to ὕλη that he is a solipsist. It is not an intelligible use of the infinite regress to argue that a *determinable* but *indeterminate* ὕλη is contradictory. There seems, moreover, a confusion in Mr. Gifford's mind between *indeterminate* and *indeterminable. Determinate* and *indeterminate* are contradictory; so are *determinable* and *indeterminable.* But Mr. Gifford will, I suspect, be hard put to it to prove either an implicit or an explicit contradiction between *indeterminate* and *determinable.* And, there-

fore, the question may *not* be raised: by virtue of what characteristics is ὕλη capable of determination? Or, if it is raised, the answer is given: by virtue of the characteristic of being capable of determination. And this answer is *no* determination of ὕλη; it is a *denotation.* I hope that Mr. Gifford, absorbed in the fiction that a thing must *be* something else before it can *become* that something else, will see that *becoming* looks *forward* and not backward; that it is an act, complete and single, not a series of states. He will then, perhaps, agree that determination can *happen* to the indeterminate, by pure chance, and by no immanent virtue. But it has long been a crime to suppose that one world was a multiverse, that it was growing, that change was *no* illusion. Even in static accounts of the "universe," however, there is such a thing as a variable, the consideration of which may be recommended to the monists. ὕλη is the fundamental variable, about, before, around, within us. It has no value of its own except it is involved in every value or form. Mr. Gifford may call it spirit if he likes, or matter, or roly-poly. The name doesn't matter. The indeterminateness does.

II

It is, therefore, absolutely unnecessary and gratuitous to assume that *A* in order to become *B is already* that *B* "unrealized." This is an assumption equivalent to "nothing is everything, 'unrealized.'" Mr. Gifford offers no proof of his assumption—though I suspect that behind it is the notion that relations are inside their terms and constituted by them. It involves as inevitable consequences a rigid monism, the falsity of all knowledge, the identity of anything with everything, and all the other contradictions of absolutism. As it stands in Mr. Gifford's paper, it is to be met with a flat denial, merely; but it is already sufficiently refuted in the pluralistic definition of "relation." An apple does not become red because it contains red inside of it, "unrealized," or because it is an apple. It becomes red because red becomes one of its predicates. It is as much apple without the red as with it. If it is an *item* it is not indeterminate; and to speak of an indeterminate item is to impute to Dr. Schiller a meaning that can not be found in any of his utterances, and to beg the question. *Being* and *becoming* are not items; they are certainly indeterminate. Beings are determinations of both; but *a fortiori* they can be and are the basis of beings.

III

If Mr. Gifford had really understood "pragmatic contentions to the contrary," he would *not* have found himself compelled "to

acknowledge a *system* of things'' defined as he defines them. Nor would he have to admit that the dichotomy Dr. Schiller suggests is futile. He would have seen that it is very necessary if life is not to be called a monistic illusion. He would have seen that things may be together—with and different—from each other; that they may be as real as the experience of them, and the experience as they. What Mr. Gifford means by that very ambiguous word *system* is most obscure. Does he mean a whole, a class, an aggregate, or a collection? The first is certainly impossible, despite monistic arguments to the contrary; the other kinds of ''unities'' are what pragmatism has insisted on as against the ''block universe.'' We may, therefore, assent that reality is experience and yet insist that many aspects of experience imply ''a bare ὕλη, a sheer potentiality,'' just as other aspects imply minds other than our own. That ''within experience form and content imply each other'' is an *ignoratio,* and is, in any event, not proved. As well say that the marble implies the idea of the statue or the chisel which embodies the idea. The finished statue does imply *both* idea and content. But it is mere misunderstanding to accuse the pragmatist of believing in a *finished* world; nor does the *finished* statue at all account for the union of form and content. That they are not the same is obvious to any one but a monist. Pragmatism aims to show *how* they came together. But, admitting for the moment that form and content do imply *one* another, can it be argued hence that there can be no ''non-psychical ὕλη ''? Only on the presuppositions of the homeopathic philosophy, which destroys all differences in the one arch-hooligan, the absolute. For on those presuppositions alone is the divine identical with the indeterminate.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Principles of Empirical or Inductive Logic. JOHN VENN. Second Edition. London: Macmillan & Co. 1907. Pp. 604.

It appears to me that Dr. Venn's book is peculiarly opportune at the present time; and deserves more attention than is apt to be accorded to a second edition, especially when such does not represent a work wholly recast and rewritten. In his modest introduction to the first edition, the author does not claim great originality in his treatment of his subject, and states that his main guiding influence was that of Mill, who dominated the thought of intelligent students to an extraordinary degree a generation ago. The preface to the second edition is, if possible, more modest, and leaves the reader to find out for himself the value of the book.

Dr. Venn's debt to Mill is, of course, evident to any one familiar with the famous "System of Logic," and I do not propose, in the present notice, to enter into a detailed criticism of his successive chapters on terms, propositions, hypothetical and disjunctive judgments, definition, division, induction, the syllogism, the inductive methods, and the rest. There is not one of these chapters which may not very profitably be read, whether by the novice or by the trained logician of any school, for though Dr. Venn has kept the frame or outline of a logic with which we have all become familiar, he has treated each subject with an independence quite his own; and, it is important to remark, an independence born not of a mere love of independence, but which has its root in a broad knowledge of the sciences, a conscientious desire to tell the exact truth about things, and a wholesome fear of the baleful influences of passion and prejudice. So striking is this characteristic that I wish to place it in the foreground. It is seldom that one meets with an author so willing to speak with hesitation in the presence of insufficient evidence, so little tempted to urge upon his readers pet theories of his own, so ready to stop talking where his knowledge ceases.

I have said that the appearance of the book is peculiarly opportune, and have been impelled to say this, not chiefly because of the author's contributions to especial departments of logical doctrine, such as the theory of hypothetical and disjunctive propositions, or that of the relation of the syllogism to induction. I have been impelled to say it because of the general standpoint taken and the temper of mind exhibited in the book. We are fallen, I think, on evil times; there has been in the past few years a distinct exacerbation of the tendency to irresponsible and rhetorical writing. Once we were taught that truth was a something to be reverenced and obeyed; now we are given to understand in certain quarters that she is a trollop that we may order about with a good deal of freedom. Many of us believe that this view of things will, in time, bring its own cure, and that subjective and objective will again be held worthy of clear distinction. Meanwhile, those who still believe in science are rendered uneasy by the prevalence of what seems to them a confusion, unnecessary in itself, and which may easily serve as a basis to unwholesome superstitions. Such will find in Dr. Venn's volume a statement, always cautious and moderate, but which does not discredit science as a whole nor seem to lend authority to petulant exaggerations of the ignorance of man. It is a good thing for the man who is in danger of falling into the error that we make truth rather than find it, to come upon such a sentence as the following: "Nature, as the ground and foundation of our inductions, shows no distinction between the past and the future. We must regard it as stretching alike in both directions, with supreme indifference both to our feeble powers of studying it and to our personal interests in contemplating it. Those powers and those interests make the distinction between the past and the future one of paramount importance to us men as observers and agents, but they can not transfer this importance into the objective connection of the phenomena themselves" (p. 124).

Dr. Venn does not regard empirical logic as an ultimate science, and in his first chapter he lays down certain postulates which it should accept as its foundations. The first of these is the duality accepted in common sense and in science—the duality consisting of the world of external objects, on the one hand, and of the observer, on the other: "The existence of an external world, in fact, is just one of those questions which a man must be left to settle with his metaphysician, but which he has no reason to introduce in the case of any quarrel between himself and his logician. He can not utter any of the precise statements of logic, or any of the looser ones of common life: he can not claim to be right upon any subject of discussion, he can not be shown to be wrong: he can not even ask a question which goes outside his own private feelings: without admitting all that we require for our present purposes" (p. 3). In other words, both in common life and science we find that we are dealing with objects—not merely with our sensations and feelings, but with objects—and are making inferences concerning them. Empirical logic is concerned with our method of procedure. It may describe it, and bring us to a clearer knowledge of its significance; it may not enunciate propositions in contradiction with the actual edifice of our knowledge.

I feel like going a little farther than Dr. Venn, and maintaining that the metaphysician has no more right to do this than the logician. What a man may be left to settle with his metaphysician is not, I take it, *whether* there is an external world, but *what* the external world is. That is to say, the metaphysician may carry a little farther the analysis of our knowledge, and try to make clear what, for certain purposes, was rather uncritically assumed. And I feel sure that, did Dr. Venn care to be a metaphysician, he would hesitate long before he would allow any train of metaphysical reasoning to conduct him to what appears to be a frank repudiation of the actual knowledge of the world possessed by mankind. Mill was not so careful; he accepted a dualism, too; but he has said things which certainly lay him open to the charge of inconsistency.

Other postulates brought forward by Dr. Venn are: the objective uniformity of the external world, independent of our attitude of knowledge or ignorance towards it; the essential sameness of the world to all observers; the fact that the logician must leave the external world undisturbed, if inferential processes are to be valid; the acceptance of the distinction between truth and falsity; and the assumption that words must have some definite meaning in the minds of all who use them, and that we have a right to change the form of expression so long as the meaning is not interfered with.

It is clear to one reading this list that Dr. Venn has limited carefully the province of the inductive logic. One who chose to write a logic broader in its scope would certainly regard these postulates as worthy of extended discussion. But, for the purpose in hand, it seems justifiable to assume them and merely to define their significance. It will be observed that they are all tacitly accepted in the sciences generally, and that their repudiation would result in hopeless confusion. And this

brings me back to the thought upon which I have dwelt above, namely, that Dr. Venn has written his work fully alive to the responsibilities which the indubitable existence of a considerable body of knowledge, in part satisfactory, and in part held with reservations, lays upon the shoulders of the logician and the philosopher. Men have had a long experience of the world; in some directions human knowledge has been pretty well systematized; the solitary thinker should think more than twice before he decides to treat all this lightly. If his conclusions come into collision with what it seems reasonable to accept as the basis of the inductive logic, he should distrust them; and if his conclusions seem to be very startling and interesting, he should distrust them all the more.

I have left myself little space to dwell upon the special topics treated in Dr. Venn's book. I have found of great interest: his discussion of the laws of causation, and more particularly his treatment of coexistences as having much the same significance for inference as sequences; his chapters on definition and division, which keep very clearly in view the practical aims of scientific investigation; his emphasis upon the misleading character of the account usually offered us, in works on logic, touching the process of inductive inference—the false suggestion of clearly recognizable causes and effects represented by capital letters and letters not capitals—and his insistence upon the necessity of a stroke of creative genius upon the part of the discoverer, that he may detect the presence of the property to be generalized; his modified acceptance of Mill's view of the relation of the syllogism to induction.

Everywhere the discussion is cautious; sometimes it is hesitating, as though the author were reluctant to commit himself. In his chapter "On Certain Foundations of Mathematics," the question of the origin and nature of the certainty we feel about the axioms and conclusions of geometrical reasoning is referred to, and we find in a subjoined note the following words: "at the risk of destroying any trust the philosophical reader may entertain about my right to touch these questions at all, I must frankly admit that I can not claim to have arrived at any confident judgment upon the matter. Fortunately, as above remarked, such a final judgment is not necessary for present logical purposes" (p. 474).

The chapter just referred to I have found one of the most interesting, and, yet, in certain respects one of the least satisfactory in the book. Dr. Venn is not so much concerned with the origin of geometrical axioms as with "the nature of the geometrical subject-matter," namely, the surfaces, lines, and points with which we have to deal. He is, of course, as well equipped as any one to deal with mathematical concepts as such, and he is a skilled logician. But I am inclined to think that logic, as he has chosen to set its limits in the present volume, must find the question of the ultimate nature of mathematical concepts one that lies beyond its province. Have we not seen that the empirical logic accepts the duality of external world and observing mind, leaving to the metaphysician the further discussion of the matter? And if we will enter into discussions touching the nature of space and time and their demarcations, are we not

on metaphysical ground? For my part, I do not believe that we can treat of the ideal surface, line, and point, as these exist for the mathematician, and distinguish them from surfaces, lines, and points, as directly revealed in sense experiences, without entering into questions touching the subjective and objective, appearance and reality, which are unequivocally metaphysical questions. The chapter on "Psychical Standards and Units" carries one, I think, into much the same field.

However, these are matters on which we should all decide to hold our opinions, if we have opinions, tentatively. Dr. Venn has set us an example of candor and modesty which we would do well to follow.

As for the style of the book, it is clear and simple, offering no unnecessary difficulties to the reader; the learning of the author will be appreciated by the discriminating, but unnecessary references have been carefully avoided, and there is no show of learning at all. The temper of the work reminds one of the writings of Henry Sidgwick; but, the present volume, while retaining all the patient fair-mindedness of the "Methods of Ethics," is much more readable. In closing, I may say that Dr. Venn made his reputation long ago, and the critic of the present day can do little either to make or to mar it. But the present-day critic may well regard it as a serious duty to urge upon the attention of the rising generation a work of such solid worth, and one which so admirably represents the scientific spirit at its best.

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Leçons élémentaires de psychologie et de philosophie. A. REY. Paris: Édouard Cornély & Co. 1908. Pp. viii + 1042.

A most comprehensive outline of psychology and philosophy is given by Professor Rey. We are usually inclined to look with suspicion upon a volume which includes so many subjects as does this one. But upon reading the book through one sees that the different fields have been well covered. The volume contains the following subjects: psychology (pp. 1–459), esthetics (pp. 461–485), logic (pp. 487–683), ethics (pp. 685–929), and metaphysics (pp. 931–1009). The treatment of these subjects is extremely systematic and modern. In fact, a lecturer or instructor in such subjects as psychology, logic, ethics, or metaphysics could easily do himself credit by following the outline of topics and the treatment given.

Psychology is well handled. A thoroughly reliable and modern view is presented. Such aspects as the motor side of ideal processes, the biological function of consciousness, and, in the case of attention and memory, the pathology of the subject, are given. As the portion devoted to psychology gives such facts as may be found in the modern text-book, an abstract of the contents is not necessary. To indicate the general character of the treatment, however, I shall give the topics followed in the discussion of attention. The author first defines attention and then gives the various kinds, as spontaneous and voluntary. Under the topic "Psychological Aspects" he discusses concentration, adaptation, fluctuation,

and interest. Under the topic "Physiological Aspects" he treats of changes in the circulation of the blood, respiratory changes, motor phenomena, and inhibition. The genesis of the different forms of attention is then taken up and the theories of attention are briefly considered. The function of attention and discrimination is briefly presented. Other topics are treated in a similar manner. The section of the book on psychology will be found most useful to student and instructor alike. In fact, it is well worth a translation into English.

The esthetics is much briefer than the other sections of the book. The author here deals in a very general way with such topics as the historical conceptions of art, the objective or sociological point of view, the subjective or individual point of view, science and art, style, art and ethics, and art and utility.

Like the psychology, the logic is modern and far ahead of the elementary books in English. In addition to the so-called Aristotelian or formal logic the author gives an account of the classification of the sciences, method in mathematics, method in the natural sciences, and method in the psychological and sociological sciences. These divisions alone are extremely suggestive. While advanced works like that of Ormond deal with such topics, the usual text-book in English does not touch upon them. The treatment of method in mathematics is very good. Among other topics the author discusses the general method in mathematics, the character of mathematical definition, the mechanism of proof, the forms of demonstration, and the origin of mathematical notions.

The ethics discusses the usual topics, as the systems of ethics, obligation, sanction, pleasure, sentiment, and reason, duty *vs.* pleasure as the end of life, etc. The social side of ethics is then taken up. The family and the state receive some consideration. The section on ethics concludes with a presentation of the basic rights of the individual.

The metaphysics gives a survey of the theories which seek to define reality, being, substance, and the absolute. Materialism, spiritualism, idealism, apriorism, empiricism, etc., are thus discussed. In connection with the individual, freedom and determinism are considered. The section closes with a presentation of the theories of matter, hylozoism, idealism, materialism, parallelism, etc.

For the student the entire volume is most serviceable. The work is more than a compend. It is a careful presentation of the most recent facts in the various subjects, and is extremely useful because of the orderly and systematic treatment given.

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Quelque mots sur la définition de l'hystérie. ED. CLAPARÈDE. *Archives de psychologie,* October, 1907. Pp. 168–193.

So numerous and so diverse are the hypotheses which have lately been offered in explanation of hysterical phenomena, that Claparède's keen and logical discussion of the question on the broad lines of biological development is a most timely and valuable contribution to the literature.

With his usual clear insight, he first points out several causes of the existing diversity of opinion; next enumerates the points which a definition, to be satisfactory, must explain; then shows in what respects certain definitions fail to meet these requirements; and finally, by the aid of the biological method, which he has so often successfully applied to other phenomena, builds up a conception of hysteria on the basis of evolutionary and developmental changes.

The many and varied conceptions of hysteria are, he thinks, the natural results of the individual view-points and therapeutic methods of the men who framed them. In an investigation of the same symptom complex the physiologist will deem certain features of primary importance which to the anatomist or psychologist will seem of little account, so entirely will their interest be centered on totally different phenomena. Furthermore, various men have succeeded in removing hysterical symptoms by the use of quite different methods—hypnosis, suggestion in the waking state, rational psycho-therapy, the freeing of a submerged emotional memory, and physical treatment have proven equally effective—and it is but natural that each physician should base his opinion of the nature of the disease upon the theory underlying his own successful therapeutic efforts.

He discusses at some length the conditions of a satisfactory definition and believes that one can never be reached by any purely clinical method of investigation, but that a knowledge of all the symptoms must be supplemented by a further knowledge of their causes and the order of their development.

The much criticized definition of Babinski he finds quite inadequate. This holds that hysteria is a psychic state manifesting itself by certain primary and secondary characters. The primary characters can be reproduced by suggestion in certain subjects, and can be eliminated by persuasion. Claparède objects that, taken literally, the definition tells nothing of the nature of hysteria, as the cause and nature of the induced characters may be quite different from the cause and nature of the hysterical symptoms which they duplicate. Suggestion is not shown to have any causal relation with the hysterical phenomena. The definition is, therefore, merely an empirical sign founded on the comparison of certain hysterical symptoms with artificially induced functional conditions, and the application of the theory to other symptoms than those studied is not justifiable.

Although the definition does not state it, Claparède quotes Babinski as asserting elsewhere his belief that the primary symptoms of hysteria are the result of suggestion or auto-suggestion. This would be a more satisfactory definition, but would still leave the phenomenon of suggestion unexplained.

Before entering upon the discussion of suggestion, it seems necessary to understand that, apart from any theories as to its nature, the term suggestion designates quite different phenomena as used by Babinski, Janet, and Claparède. Babinski uses it in a very limited sense to sig-

nify the attempt to induce an individual to accept a manifestly unreasonable idea. Janet applies it to ideas which develop automatically outside the will and personal perception of the subject; if induced from without, they are the product of suggestion, if evolved by the subject, of auto-suggestion. Babinski and Janet thus make a sharp distinction between suggestion and persuasion. Claparède, on the other hand, looks upon persuasion as a form of suggestion and considers the latter a normal function of the mind, a sort of instinct or mental reflex, which is for the mind what the mimetic movements are for the body. Its function is to assist the individual to conform to the conditions of his environment.

He advances three hypotheses in explanation of hypersuggestibility. The first attributes it to a cerebro-mental trouble which constitutes the fundamental characteristic of hysteria; the second considers it an exaggerated reaction—a partial effect of a general disposition toward an abnormal exaggeration of certain reactions, which disposition constitutes hysteria; the third considers it the result of the narrowing of the personality due to the inhibition of certain mental complexes or to their non-assimilation with the ego. The second point of view is Claparède's own, and has the advantage of harmonizing with general evolutionary and developmental theories. He thinks that the phenomenon of suggestion is not the fundamental character of hysteria, and that, therefore, all hysterical symptoms can not be explained by reference to it. For example, he thinks it manifestly impossible that astasia-abasia can be the result of auto-suggestion. This opinion, of course, follows his conception of suggestion, which requires that for an auto-suggestion a preconceived idea of the resulting condition exist in the mind of the subject. If one thinks of suggestion in the sense of Janet's definition, this objection at once disappears, for the term then refers to the development of the idea apart from the personal consciousness.

Furthermore, suggestion is unsatisfactory as an explanation, because it takes no account of the pathogenic evolution of hysteria. Breuer and Freud were the first to point out the importance of noting the genetic stages of the disease. They hold that a primitive inversion and an abnormal excitability of the nervous system result in the cutting off from consciousness of painful impressions and memories, which cutting off, in its turn, causes various functional manifestations. They compare hysteria to an edifice of many stories, each story presenting individual characteristics.

Claparède attempts, by the aid of biological concepts and methods, to assign the various symptoms to the level at which they genetically belong. He holds that the biological standpoint is useful in three directions: it points out which reactions are primary and which contingent, it shows the common origin of diverse symptoms, and reveals abnormalities of reaction.

Biology teaches us that all organisms respond to adverse environmental conditions by defensive reactions. An analytical study of hystericals shows a marked resistance to the recall of painful memories.

Biologically considered, such resistance is nothing more than a defensive reaction against a painful experience. Accompanying this defensive reaction directed toward certain memories, we frequently find paralyses and anesthesias; these are determined in kind by the inhibited ideas, which act through some established associative connection. With normal individuals, a purely mental experience often produces a feeling of disgust and actual contraction of the pharynx; the physical symptoms of hysteria are analogous phenomena, but they are much exaggerated and totally unimpeded. Hysterical swellings, blisters, and kindred phenomena may also be included in the class of defensive reactions if they be regarded as reproductions, changed and rudimentary, of course, of a type of reaction of great importance to the organism at some remote period of phylogenetic development.

Suggestibility is also brought within the group of defensive reactions. It is counted a reaction against one's personal peculiarities, which would, if allowed free development, tend to isolate the individual from the social group. Hypersuggestibility is, accordingly, but an exaggeration of this quite normal reaction of defense.

Thus the basis of the principal physical stigmata and accidents, as well as of the hypersuggestibility of hysteria, is found to be a tendency toward the exaggeration of certain defensive reactions. The nervous system of hystericals is characterized by a tendency to reversion, to ativism, which facilitates the action of reflexes. This tendency toward reversion, toward retention of primitive types of reaction, is usually found in individuals of infantile mentality. Biologically woman represents a less evolved type than man. This is evidenced by the persistence of the play instinct—which is a developmental phenomenon ceasing at maturity —throughout the life of woman. This infantilism renders her more susceptible to reversion than man, and accounts for the greater frequency of hysteria among women.

This preponderance, however, has not been positively established. Charcot states that the statistical records of the patients attending his clinic have shown more cases of hysteria in men than in women. He further expresses the belief that the disease is more frequent among the men of the lower, and among the women of the higher, classes of society. Souges also states that in his hospital experience hysteria is twice as frequent among men as among women. The idea that her infantilism renders woman more susceptible to reversion is opposed to the opinion widely held that we find a greater mobility of type among men, a larger proportion of individuals diverging from the average, in the direction both of genius and of imbecility.

The question of the distribution of the disease between the sexes, however, is not essential to the development of the main thesis. As stated above, this aims to establish as fundamental the exaggeration of defensive reactions against painful impressions; this results in a cutting off of certain ideas and, therefore, in a narrowing of the field of consciousness. This inhibition also results in a lessened general dynamic force, and

hence in a diminished power of control, which permits a more prompt response to stimulation, or, in other words, a heightened suggestibility. Having thus accounted for the condition of suggestibility, we can logically place as its result certain symptoms of the hysterical complex. These symptoms are, however, far from being the fundamental ones.

To sum up this biological concept of hysteria—the fundamental feature is a constitutional or acquired state characterized by a tendency to exaggeration or recuperation of instinctive reactions of defense. This tendency results in a second group of symptoms—an inhibition of painful impressions accompanied by amnesias, paralyses, and anesthesias when partial and by syncope when complete, vomiting, convulsions, cutaneous and vaso-motor troubles, fever and hypersuggestibility. These secondary characteristics result in a narrowing of the field of consciousness and sometimes in a doubling of the personality, also in such associated troubles as conversion, transference, etc. This division of the personality, by lessening the general dynamic power, results in turn in an increased suggestibility, which makes possible the development of an unlimited number of symptoms. Thus the suggested symptoms, instead of holding first rank, are only the final phase of a developmental group passing through at least five evolutionary stages.

This classification is not offered as a final solution of the problem. It is intended merely to reveal its complexity, to point out the differences in origin of various symptoms, and to emphasize the danger and futility of trying to explain such a varied group of phenomena by any one principle such as suggestion or auto-suggestion, or, in fact, of attempting any definition before making a thorough investigation of the nature of the phenomena involved.

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JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. March, 1908. *Sur l'ensemble de la psychologie linguistique* (pp. 225–255): R. DE LA GRASSERIE. – A definition of linguistic psychology and a description of its field, as psychology of syllables, of words, and of syntax. *L'indépendance de la morale* (pp. 256–273): P. GAULTIER. – Ethical systems based on science lack the power of ideals and are cut off from "conscience," therefore they are failures, and objective science has come to deny the possibility of ethics. *Deux types d'immoralisme* (pp. 274–285): G. PALANTE. – Immoralism treats morality either as nearly impotent or as effective, but a tyranny to be revolted from. *Revue générale: La psychosociologie juridique* (pp. 286–292): G.-L. DUPRAT. *Analyses et comptes rendus: L'année philosophique:* JULES DELVAILLE. G. Calò, *Il problema della liberta nel pensiero contemporaneo:* J. PÉRÈS. O. Lodge, *La vie et la matière:* ABEL REY. K.

Neisser, *Ptolemaus oder Kopernikus?* ABEL REY. A. Binet, *L'année psychologique* (XIII.): H. PIÉRON. Brasseur, *La psychologie de la force:* ABEL REY. Pick, *Studien zur Hirnpathologie und Psychologie:* H. DAUDIN. Rogues de Fursac, *Un mouvement mystique contemporain:* H. DELACROIX. Höffding, *Philosophes contemporains.* Alexander, *A Short History of Philosophy:* F. PILLON. Pringle Pattison, *The Philosophical Radicals and other Essays:* M. SOLOVINE. Görland, *Der Gottesbegriff bei Leibniz:* A. PENJON. *Revue des périodiques étrangers.*

REVUE PHILOSOPHIQUE. April, 1908. *La morale des idées-forces* (pp. 337–366): D. PARODI. – A critical study of "La morale des idées-forces," by Alfred Fouillée. *Pragmatisme et intellectualisme* (pp. 367–388): A. CHIDE. – Pragmatism is a rebirth of nominalism, and its motif is the striving for clarity, but in order to become profound it is reconverted to intellectualism in spite of itself. *L'indépendance de la morale (suite et fin)* (pp. 389–409): P. GAULTIER. – The scientific denial of the possibility of ethics comes from a too narrow concept of science, but a broader concept, admitting psychology, furnishes an adequate basis for ethics. *Revue générale: La psychologie infantile en 1907* (pp. 410–425): MARIE E.-B. LEROY. *Observations et expériences: Sur le temps nécessaire pour nommer les nombres* (pp. 426–431): B. BOURDON. *Analyses et comptes rendus:* E. Becher, *Philosophische Voraussetzungen der exakten Naturwissenschaften:* ABEL REY. Chatterton Hill, *Heredity and Selection in Sociology:* G.-L. DUPRAT. Durkheim, *L'année sociologique* (10th year): G. BELOT. Marchese de Luna, *Il suicidio nel diritto e nella vita sociale:* G.-L. DUPRAT. Troilo, *La filosofia di Giordano Bruno:* J. PÉRÈS. *Revue des périodiques étrangers.*

Apulei Opera. Vol. III: Apulei Platonici Madaurensis de Philosophia Libri. Edited by Paulus Thomas. Leipzig: B. G. Teubner. 1908. Pp. xviii + 197. 4 M.

Gilbert, Otto. *Die meteorologischen Theorien des griechischen Altertums.* Leipzig: B. G. Teubner. 1907. Pp. vi + 746. 20 M.

Mitchell, Henry Bedinger. *Talks on Religion.* New York: Longmans, Green & Co. 1908. Pp. x + 325. $1.50 *net.*

Stumpf, Carl. *Die Wiedergeburt der Philosophie.* Address delivered by the author on his installation as rector of the University of Berlin, October 15, 1907. Leipzig: J. A. Barth. 1908. Pp. 38. 1 M.

Surbled, Georges. *L'ame et le cerveau.* Deuxième édition, revue et augmentée. Paris: A. Maloine. Pp. viii + 206. 5 fr.

Urban, F. M. *The Application of Statistical Methods to the Problems of Psychophysics. Experimental Studies in Psychology and Pedagogy,* No. 3. Edited by Lightner Witmer. Philadelphia: The Psychological Clinic Press. 1908. Pp. viii + 221.

NOTES AND NEWS

THE following, from the *Athenæum*, is the summary of a paper read by Mr. H. Wildon Carr before the Aristotelian Society, on April 6, on "Impressions and Ideas—the Problem of Idealism": "The description of experience as consisting of impressions and ideas, which we owe to Hume, is convenient for illustrating the problem of psychological idealism. This is the view that psychical states are the only data of knowledge, and, followed to its logical consequence, it involves the theory known as solipsism. This is the theory that the knower and his conscious states are the only reality, and it is universally rejected as incredible. But idealist theories do not and can not meet it by a direct logical refutation; they reject it on the ground of absurdity, and for the most part resolve themselves into theories of the nature of independent reality. When the ground of an argument can not be disputed, and the logical conclusion can not be accepted, the only alternative is skepticism. This skepticism can be and has to be stated as an ultimate positive philosophical doctrine, and it was so stated by Hume."

THE Society for Philosophical Inquiry of Washington, D. C., held a meeting on May 5, at the George Washington University, in commemoration of Gottfried Wilhelm Leibniz. The program was as follows: "Leibniz's Doctrine of the Pre-established Harmony," by Professor George L. Raymond; "Leibniz's Doctrine of Free Will," by Professor George M. Sauvage; "Leibniz's Theodicy," by Dr. Edward E. Richardson; "Leibniz's Lasting Contribution to Philosophy," by Dr. William M. Coleman.

PROFESSOR A. L. KROEBER, of the University of California, has returned from an ethnological visit to the Mohave Indians of Arizona and California. His investigations continued previous studies of the mythology, rituals, and music of the tribe. A survey of nearly three hundred shellmounds on the northern shores of San Francisco Bay has recently been completed by the department of anthropology of the university.

THE Right Hon. A. J. Balfour, F.R.S., has been elected a corresponding member of the French Academy of Moral and Political Sciences in succession to Lord Reay, who has been elected an associate.

PROFESSOR CHARLES H. JUDD, of Yale University, will be one of the lecturers in the new department of psychology and pedagogy at Chautauqua this summer.

MR. HENRY WILDE, D.C.L., F.R.S., already a liberal benefactor of Oxford University, has given £4,000 to found a lectureship in natural and comparative religion.

MR. H. B. ALEXANDER, at present engaged in literary work at Springfield, Mass., has been appointed professor of philosophy at the University of Nebraska.